

हर कदम, हर डगर किसानों का हमसफर आरतीय कृषि अनुसंधान परिषद Agrifisearch with a Juman touch In this issue

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- \* Effect of Dairy Housing on microenvironment and productive performances of cows
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- National Extension Education Congress held
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- Breeding
- \* Stake Holders Meet held
- National Seminar on Composting of Coir Pith and use of Geo textiles
- \* ICAR Introduced Technique to Produce Fodder without Soil

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The Indian Council of Agricultural Research has initiated the consultations on formulation of XII Five year plan. The Government of India asserted for all out efforts to match the four per cent agriculture growth target in the 12th Plan period with the resources at its disposal. Agriculture represents the third important economic activity in Goa providing livelihood to 16

### From Director's Desk...



% of the population after tourism and mining. The contribution of agriculture to state domestic product has declined from 16.5 % in 1960-61 to 8% in 2002. There is a gradual decline in the contribution of agriculture to the state economy over the years due to growth in other sectors. There is a gradual shift from labour intensive field crop production to perennial horticultural plantations.

The Council has prioritized 27 areas for research to be addressed during the XII Five-Year Plan. The areas of concern to the coastal agriculture research including Goa region include Agri-Biodiversity Management; Seed (Planting material, propagules, semen); Climate change, Conservation agriculture; Water; Waste (Agro-waste, Municipal waste, Residues); Feed and fodder; Bio-fortification; Diagnostics; Precision farming; Farm mechanization and energy; Mammalian pests in agriculture; Mariculture; Agriincubators; e-Extension; Socio-economic dimensions; Missions on Pig, Poultry. The secondary agriculture would be providing value addition to agricultural products, creating facilities for primary processing and stress management in agriculture. All these programmes would require application of Biotechnology, Information and Communication Technology. Various areas have been prioritized for research for the region which include improving resource use efficiency (conservation and management), development of integrated farming system models, for different regions, developing successful models of agro- eco-tourism, developing models for protected cultivation of vegetables and flowers, improving livestock productivity through breeding, health and feed/ fodder management, diversification of brackishwater aquaculture and ornamental fish culture, processing and value addition of horticulture, livestock and fish products, HRD in new and emerging areas, climate change, its mitigation and coping with disasters, conservation and bioprospecting of rich biodiversity in the region. Through the efforts of researchers, we hope to come to the expectations of the farming community and the policy makers and deliver the best during the XII plan period.

N. P. Singh

# **RESEARCH HIGHLIGHTS**

### Characterization of brinjal germplasm of Goa

Brinjal is one of the important vegetable crops of Goa state. Wide variability exists for fruit size, shape, colour and resistance to biotic stress. In order to conserve and utilize the valuable germplasm of brinjal, all the accessions were raised in field and evaluated for yield and yield contribution traits. Out of 43 accessions evaluated, SMG-18 recorded the earliest flowering (25 days after planting). The fruit weight ranged from 62.18 g (SMG-35) to 362.93g (SMG-2). With respect to bacterial wilt incidence, it ranged from 15.55 to 60.55%. Accessions with higher fruit weight, purple round or oblong shape are being used in the ongoing crop improvement programme.



# Evaluation and preservation of boar semen

Twelve numbers of boars (6 Large White Yorkshire, 2 Duroc and 4 crossbred) were selected and trained for semen collection. A total of 37 semen ejaculates were collected by hand glove method. The reaction of boars for collection of semen varied from 2 to 10 minutes. Average volume of the semen ejaculate was 137 ml with range of 60 to 250 ml. The average sperm cell concentration in the ejaculate was 390 million/ ml with a range of 170 to 730 million/ ml. The average progressive forward motility of the sperm cells atimmediate collection was 75.55 per cent with the range of 70 to 90 per cent. The semen was diluted in BTS extender and stored at 17 °C. The progressive forward motility in the stored semen samples was 50 per cent after 24 hours of storage, 30 per cent at 48 hours of storage, and 25 per cent at 72 hours of storage. Semen samples were also analysed for the sperm cell morphology and functional membrane integrity.

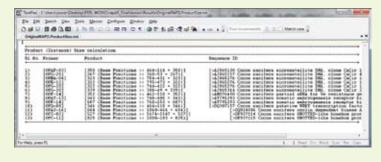


### Effect of Dairy Housing on microcuvironment and productive performances of cows

A survey on management systems, types of housing, hygienic conditions, breeds of animals, feeding status and health status of animal etc was conducted in Pernem, Bicholim, Salcete and Ponda talukas of Goa using a questionnaires. In total thirty four farmers were interviewed for collecting information. Maximum farmers belonged to small category (36.67 %) followed by very large (33.33 %) and medium (16.67 %). Most farms were managed intensively (73.33 %). RCC type of flooring was common with proper drainage. Samples were also collected from the farmers for investigation of mastitis. Repeat breeding and mastitis are common ailments affecting the animals.

### Marker express: A software to mine the nucleotide sequences for RAPD developed

A software (Marker express 1.0) was developed to mine the nucleotide sequences for RAPD priming sites and design iSCAR primer pairs. Marker express helps to identify the specific primers whose priming sites are available in the target organism to optimize the use of primers and reagents. Beta version of the software also works out base composition of the sequences and designs iSCAR (in silico Sequence Characterized Amplified Region)



primers. Two input files a primer sequence file(\*.txt), and a target nucleotide sequence file(\*.fasta) are needed from the user. Five set of output files are generated. Matching details of RAPD primers, priming site location details of the matched sequences, product size details of sequences having two or more priming sites, predicted iSCAR primers file and a base composition file. We tested using expressed sequences of oil palm covering 1.4 % genome and found 60 % amplifiable primers and 92 % polymorphic primers by comparing the publication reporting wet-lab PCR results. Currently the services of the software are provided to interested researchers dealing plant, animal, fish, insect and microbial system(s) in academic institutes free of cost on partnership mode with ICAR RC Goa.

# **MAJOR EVENTS**



Dr. A. K. Singh, DDG (NRM), ICAR, New Delhi visited the Institute on 10th September, 2011. Dr N. P. Singh, Director apprised the DDG (NRM) about the activities being undertaken by the Institute. He visited different field



experiments and laboratories of the institute and interacted with the scientists and other staff of the Institute. He also visited the Krishi Vigyan Kendra and various technology demonstrations in the farmer's fields.

### **Celebration of World Food Day**

The ICAR Research Complex for Goa and Krishi Vigyan Kendra celebrated the "World Food Day" under the theme "Food prices from crisis to stability" on 17th October, 2011 at the KVK campus, Old Goa. The function was graced by Shri Madhav Sahakari, Chairman, Goa State Co-operative Milk Producers Union Limited, Dr. N. P. Singh, Director, ICAR Research Complex Goa, Shri D. Dhaimodkar, Zonal Agriculture Officer, Tiswadi, Fr. Inacio Almeida, Progressive Farmer, Bhironda and Scientists, Extension Officers, KVK staff and over 100 farmers and farm women from nearby villages.

Shri Madhav Sahakari in his presidential address recalled the liberation era on the agricultural front and highlighted the contribution of Scientists and technology transfer officials who enabled the country usher in "Green Revolution". He mentioned that in spite of many achievements in this sector the increasing population and the growing demand for food has thrown new challenges before Scientists and officials as well as farmers to work towards per unit productivity increase not only in agricultural commodities but also Animal Husbandry to enable Goa to become self sufficient.

In his address, Dr. N.P. Singh, Director of the Institute highlighted the significance of the World Food Day. He said that the FAO theme this year focuses on our sustained



efforts to ensure that the food prices are affordable to those living in poor conditions. Referring to Goa, he mentioned that marketing is not a problem but increasing the productivity is a concern. Dr. B.L.Manjunath, Sr. Scientist (Agronomy) welcomed the dignitaries and highlighted the importance of World food day celebration. Dr. Raj Narayan, Programme Coordinator, Krishi Vigyan Kendra (North Goa) proposed vote of thanks. Latter the farmers were taken on a visit to experimental plots of rice and other units to see the performance of various technologies at Research farm/Labs.

### Field Day on Water Soluble Fertilizers in Rice



The Institute in association with Zuari Agro Industries, Goa organized a field day on 7th October, 2011 for farmers of Azzossim village to demonstrate the efficacy of using water soluble fertilizers in rice. Dr. N. P. Singh, Director, and Zuari officials - Mr. U. M. Ramudu, DGM (Marketing), Mr. Avinash Deshpande DGM (Marketing). Mr. B. H. Nagraj, Chief Manager (Marketing) and Mr. M. P. Madhav, Sr. Manager (Marketing) participated in the programme. On the occasion, handouts of the "Technology package for higher rice production" were distributed to the participating farmers. Dr. N.P. Singh. Director, highlighted the importance of change of seed at least once in three years and the performance of the recently introduced "Naveen" variety in different parts of Goa. About 40 farmers from the villages of Azossim, Neura and Pilar- Tiswadi, Goa practically saw the impact of the liquid fertilizer spray in rice crop.

### Field Day on "Naveen" rice celebrated

The Krishi Vigyan Kendra of ICAR Research Complex, Goa celebrated Field day on "Naveen" rice variety at Amona village in collaboration with the Amona farmers' Club, Village Panchayat, Amona and Sesa Goa Limited on 11th October, 2011. The event was organized to highlight the performance of a new rice variety "Naveen" which is a derivative of popular variety "Jaya" and suitable for parboiled rice. It matures in 120-125 days and has the potential to yield 6 to 6.5 t/ha.

The function was inaugurated by Hon'ble MLA of Pali constituency Shri Pratap Gawas in presence of Mrs. Anushka Gawas, Sarpanch, Amona Village Panchayat, Shri Mahesh Mahajan, AGM (Safety), Sesa Goa, Shri Pradeep Malik, Zonal Agricultural Officer, Bicholim, Shri Ulhas Parab, President of Amona Farmers' Club and Dr. N.P. Singh, Director of Institute.

The Honourable MLA, Shri. Pratap Gawas expressed his



satisfaction over the active role played by Krishi Vigyan Kendra in enlightening the farming community on latest technologies and mentioned that the Government has initiated many developmental schemes which the club should utilize for all round development of the farming activity. Scientists of ICAR, Programme Coordinator, KVK, NGOs and more than 150 farmers from Amona and nearby villages participateds in the programme.

### Awareness cum Training Programme on Cottage Level Food Processing



An awareness cum training programme on "Cottage Level Food Processing Entrepreneurship Development for Farmers" was conducted on 4th November, 2011 at ICAR Research Complex for Goa in collaboration with Indian Institute for Crop Processing Technology, Ministry of Food Processing Industries, Thanjavur, Tamil Nadu.

In the welcome address, Dr. N. P. Singh, Director, ICAR Research Complex for Goa highlighted the importance of

farm level value addition and cottage level food processing in Goa to mitigate the post harvest losses in food, vegetable and fruit crops and to bridge the gap between the price paid by the consumers for processed foods and the farmers' earnings. Shri. A. Amudhasurabhi, the Coordinator from IICPT, Thanjavur gave a brief introduction about the role of IICPT in creating awareness about value addition and food processing and the objectives of the training.

Dr. Mathala Juliet Gupta, Scientist and Training Coordinator, gave a brief description about the training programme.

In the technical session, scientists of the Institute, Ms. Sheela Chauhan, Technical Officer, Directorate of Groundnut, Junagadh, Gujarat and Sh. S.S. Negi, Deputy General Manager, NABARD, Goa delivered talks on the post harvest handling and processing of food crops specific to Goa. There was an open interaction session wherein the farmers and officers from State Directorate of Agriculture, Fisheries, Animal Husbandry and Veterinary Services and various banks of Goa participated. The farmers were enlightened about the finance opportunities and schemes provided by various State Directorates and Banks.

Sh. Gurudatta Bhakta, Secretary of the Goa Olympic Association, presided over the Valedictory function and distributed the certificates to the participant trainees. In his address he congratulated Institute for organizing such a training programme to create awareness among the farmers about processing and value addition but added that the procedures for loan and various schemes to farmers should be simplified for the benefits to be realized by the farmers. Around sixty seven farmers from across the state and officers from the state Directorate of Agriculture, Animal Husbandry & Veterinary Services, Fisheries and various banks of Goa participated in the programme.

### **Training cum Awareness Programme on Tuber Crops**

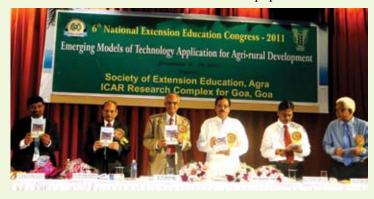
Training cum awareness programme on tuber crops was organized by the Institute in collaboration with Directorate of Agriculture, Govt. of Goa during 8-9th November, 2011 for farmers of Goa state. The programme was inaugurated by Shri. Pratapsingh Rane, Hon'ble Speaker, Goa Legislative Assembly. He spoke about the importance of tuber crops in local food habits and its cultivation on large scale. Dr. N.P. Singh, Director, ICAR Research Complex for Goa welcomed the participants and gave brief introduction about the programme. Dr. R.S. Mishra, Head, CTCRI Regional Centre, Bhubaneswar gave brief introductory remarks about the importance of tuber crops in food and nutrition. Dr. S.K. Naskar, Director, CTCRI, Thiruvananthapuram, the Guest of Honour spoke about the different technologies developed at CTCRI including technologies for post harvest handling and value addition in different tuber crops.



Shri. S.S. Negi, DGM, NABARD, Goa emphasized the role of NABARD in providing financial help to form SHGs and other farmers groups for taking up agricultural activities. Dr.M. Thangam, Senior Scientist (Horticulture) proposed the vote of thanks.

### **National Extension Education Congress held**

ICAR Research Complex for Goa organized the 6th National Extension Education Congress 2011 (NEEC 2011) under the aegis of Society of Extension Education, Agra during 17-19 December, 2011. The theme of the congress was "Emerging Models of Technology Application for Agri-rural Development". The NEEC was inaugurated by Shri. Shripad Naik, Hon. Member of Parliament and presided over by Dr. M. Mahadevappa, Former Chairman, Agricultural Scientist Recruitment Board (ASRB) and Dr. K. D. Kokate, Deputy Director General (Agricultural Extension), Indian Council of Agricultural Research was the Guest of Honour. The technical programme was divided into five sub themes and a lead paper session. The





lead papers were presented by eminent scientists like Dr. K. D. Kokate, DDG (AE); Dr. C. Prasad, Former DDG (AE); Dr. V. Veerbhadraiah, Former Director Extension, UAS, Bangalore; Dr. A. K. Singh, Zonal Project Director, ICAR, Kanpur; Dr. N.P. Singh, Director ICAR Research Complex, Goa and Dr. R. P. S. Ratan, Director Extension, BAU, Ranchi. The valedictory session of the congress was graced by Dr. S. N. Puri, Vice Chancellor, Central Agricultural University, Imphal as the Chief Guest and Dr. V. V. Sadamate, Senior Advisor (Agriculture), Planning Commission was the Guest of Honour. The session was chaired by Dr. R. P. Singh, former Vice Chancellor, MPUA&T, Udaipur and President, Society of Extension Education (SEE), Agra.

### **Scientists Meet of AICRP on Poultry Breeding**

The scientists working on AICRP on Poultry Breeding and Poultry Seed Project met at ICAR Research Complex for Goa, Old Goa to deliberate on major issues related to improvement in poultry production duing 6-7th January, 2012. The meet was inaugurated by Dr. R. Prabhakaran, Vice-Chancellor, TANUVAS, Chennai, in presence of Dr. S.C. Gupta, ADG (AP & B), ICAR, Dr. R.N. Chatterjee, Director, PDP, Hyderabad and Dr. N. P. Singh, Director, ICAR Goa. Dr. Prabhakaran emphasized on the development of different local specific breeds for rural poultry production. Dr. Gupta stated that diversified poultry production like ducks, quails and turkeys etc needs to be strengthened in addition to the rural poultry. Dr. Chatarjee told that although India stands 3rd position in egg production and 5th position in poultry meat production, the contribution from rural poultry is not significant. Dr. N.P.



Singh said that although the per capita egg and poultry meat consumption in Goa is better than the national level, still there is demand for the poultry produce as the same is being imported from the neighboring states. Dr. B. K. Swain, Senior Scientist, ICAR proposed the vote of thanks. The meet was attended by Principal Investigators of the different centres of AICRP on Poultry Breeding Project.

### **Stake Holders Meet held**

For formulating XII Plan, Stake holders meet was convened on 10th February, 2012 at the Institute. The meet was chaired by Dr. Vijay Mehta, Former Vice-Chancellor BSKKV, Dapoli and Chairman, QRT. Dr. N.P. Singh, Director of the Institute welcomed the participants and briefed about the purpose of meet and called for suggestions for inclusion in the XII plan proposal of the Institute.

Dr. Mehta mentioned about the importance of such meetings for proper planning of activities in a perspective manner. Officials from different development departments of State Government, NGOs, progressive farmers and Scientists of



the Institute participated in the discussion. Dr. B.K. Swain Co-ordinator, PME Cell proposed vote of thanks.

### National Seminar on Composting of Coir Pith and use of Geo textiles

A National Seminar on Composting of Coir Pith and use of Geo textiles was organized by the Institute in colaboration with Association of Coastal Agricultural Research and Coir-Board Regional Office, Bangalore on the 17th March, 2012. The Seminar was inaugurated by Shri. Pratapsingh Raoji Rane, Speaker of Goa Legislative Assembly. Shri. S. Shridhar, Executive Director, Goa Mineral Ore Exporters Association, Shri. R. Nagarajan, Regional Officer, Coir Board, Bangalore, Dr. K. Pradhan. Former Vice-Chancellor, Orissa University of Agriculture and Technology and Shri. Mahesh Patil, Vice-President, Sesa Goa Ltd., graced the occasion.

During the Inaugural programme, Dr. N.P. Singh, the Director of the Institute welcomed the guests and the participants and highlighted the importance of coir waste and its composting as well as use of geo-textiles for soil and water conservation especially for mine reject dumps. Shri. R. Nagarajan, Regional Officer, Coir Board, Bangalore stressed on the theme of the Seminar and its utility especially in Goa where geo-jute can make a change for stabilization of mine reject dumps. Shri. S.



Shridhar, Executive Director, Goa Mineral Ore Exporters Association, in his address highlighted the role of mining companies in the use of geo-textiles to arrest the soil and water erosion especially in mine dumps.

During the technical session, Dr. Anitha Das Ravindranath, Scientific Officer, Central Coir Research Institute, Kalavoor, Alappuzha, Kerala Shri. R Nagarajan, Regional officer, Coir Board, Bangalore delivered the lecture.

The technical sessions were followed by discussions on the field problems of the relevant topics. The Seminar was attended by about 150 delegates/ stake holders.

### **ICAR Introduced 'Technique to Produce Fodder without Soil'**

Dr. A. K. Singh, Deputy Director General (NRM), ICAR, New Delhi inaugurated the 'Hydroponics Green Fodder Production Unit' at ICAR Research Complex for Goa, Old Goa in presence of Dr. N. P. Singh, Director, ICAR Goa; Shri S. S. P. Tendulkar, Director, Department of Agriculture, Govt. of Goa; Shri S. Kulkarni, Managing Director, Goa Dairy; other officials of Govt. of Goa, Goa Dairy, progressive dairy farmers, Scientists and staff members of the Institute.

Further, the DDG released the 'Bypass Fat prepared by the Institute' and distributed to the progressive dairy farmers. Besides, three extension folders 'Technology for Production and Feeding of Hydroponics Green Fodder'; 'Technology for Preparation and Feeding of Bypass Fat to Dairy animals' and 'Marathi version of Feeds and Feeding of Dairy Animals'.

Dr. N. P. Singh, Director, ICAR Goa informed that 'Hydroponics Green Fodder Production Unit' was



established at the Institute under RKVY Scheme in collaboration with Goa State Co-operative Milk Producers' Union Limited, Curti, Ponda, Goa, which has capacity to produce 600 kg green fodder daily, cultivated without soil and under fully controlled environment.



गोवा के लिए भा.कृ.अनु.प. का अनुसंधान परिसर, एला, ओल्ड गोवा में सितम्बर १४-२८, २०११ के दरम्यान हिंदी पखवाड़ा आयोजित किया गया। बड़े धूम-धाम से १४ सितंबर को हिन्दी दिवस मनाकर संस्थान के निदेशक डॉ. नरेन्द्र प्रताप सिंह ने पखवाड़े का शुभारम्भ किया। इस पखवाड़े के दौरान कई प्रतियोगितायें आयोजित कि गई। हिंदी निबंध, सुलेख, पत्र लेखन, हिन्दी व्याख्यान (चार वर्गों - सहायक कर्मचारी, प्रशासनिक एवं तकनीकी कर्मचारी तथा वैज्ञानिकों के लिए), कविता, शायरी, अंताक्षरी, ग़ीत गायन, चुटकुला, सामान्य ज्ञान आदि

# हिंदी पखवाड़ा

आयोजित किए गये। संस्थान के कर्मचारियों के बच्चों के प्रतिभा दर्शन के लिए कई प्रतियोगिताएँ आयोजित कि गई। २८ सितंबर २०११ को हिंदी पखवाड़े के समापन एवं पुरस्कार वितरण समारोह में गोवा बागायतदार सहकारी खरिदी विक्री संस्थान मर्यादित के चेअरमन. श्री. नरेंद्र सवाईकर को मुख्य अतिथी के रूप में आमंत्रित किया गया। समारोह का शुभारंभ ईश्वर वंदना से किया गया। संस्थान के निदेशक डॉ. नरेंद्र प्रताप सिंह ने स्वागतपर भाषण देते हुए आशा व्यक्त कि की इस पखवाड़े के खत्म होने के बाद संस्थान के कॉर्रवाई में राजभाषा का प्रचलन और बढेगा। डॉ. श्रीमती मथला जूलयिट गुप्ता, सचिव (रा.भा.) ने संक्षेप में पखवाडे के दौरान आयोजित कार्यक्रमों ओर प्रतियोगिताओं की रूप-रेखा प्रस्तुत कि। मुख्य अतिथीने सभा को संबोधित किया तथा संस्थान को हिंदी पखवाड़े के आयोजन पर बधाई दी। इसके पश्चातमुख्य अतिथी श्री. नरेंद्र सवाईकर और डॉ. नरेंद्र प्रताप सिंह ने अपने करकमलो से विभिन्न प्रतियोगिताओं के विजेता प्रतिभागियों को पुरस्कार प्रदान किए। अंत में सचिव (रा.भा.) ने माननीय सुख्य अतिथी का आभार व्यक्त किया।

# **PARTICIPATION IN SEMINAR / SYMPOSIUM/ CONFERENCE / MEETING**

#### N.P. Singh, Director

- Flagship research project meeting held at KAB-II, New Delhi on 21st September 2011.
- Meeting on Conservation of Agriculture held at KAB II, New Delhi on 22nd September 2011.
- Sixth National Symposium-"Noni-A Panacea for Wellness" held at Chennai during 1-2nd October 2011.
- Biennial Group Meeting of AICRP on Integrated Farming Systems held at CARI Port Blair during 27-29th December 2011.
- XXXth Annual Group Meeting of All India Coordinated Research Project on Vegetable Crops, held at Govind Ballabh Pant University of Agriculture & Technology, Pantnagar during 13-16th January 2012.
- National Consultation on Prioritization of Academic and Research Programmes for the XII Five Year Plan held at CIFE, Mumbai on 14th January 2012.
- International Conference on Climate Change, Sustainable Agriculture & Public Leadership, held at NASC, New Delhi during 7-9th February 2012.

- Director's Conference held at New Delhi during 17-18th February 2012.
- Horticulture-Industry Meet-held at IIHR Bangalore on 6th March 2012.
- National Stakeholders' Consultation Meeting held at NAARM Hyderabad on 14th March 2012.
- National Seminar on "Management of Salt Affected Soils and waters: Challenges of the 21st century" held at CSSRI Lucknow during 16-17th March 2012.
- National Consultation on Application technologies for harvested rain water in Ponds held at CRIDA Hyderabad during 19-20th March 2012.
- National Seminar on Indian Agriculture: Preparedness for Climate Change, Indian Society of Agricultural Science, Division of Agronomy held at IARI New Delhi during 24-25th March 2012.

#### Dr V Arunachalam

- Training cum workshop on installation of software under Strengthening the statistical computing of NARS held at UAS Bengaluru during 13-14 December, 2011
- 2nd Horticulture-Industry meeting held at IIHR Bengaluru on 6 March, 2012
- National Seminar: Indian Agriculture: preparedness for climate change" at at New Delhi. during 24-25 March. 2012

#### Dr. S.K. Das

- Stakeholders meeting on climate change held at CRIDA, Hyderabad during 19 20 September, 2011-
- XX Annual Conference of SAPI and International symposium on "Advances in Physiologic research for sustainable development of livestock and poultry production" held at WBUAFS, Kolkata during 2 4 November, 2011.
- National Seminar on "Indian Agriculture Preparedness for Climate Change" held at New Delhi during 24-25 March. 2012

#### Dr. S.B. Barbuddhe

- Second International Conference on Holistic Medicine (ICHM-2011) held at Kottayam, Kerala.during 11-13 September, 2011.
- Annual meeting of ZTM-BPD held at the CIRCT, Mumbai during 13-14 January, 2012.
- Seminar on "Emerging foodborne pathogens" held at Mapusa Goa during 9-10 February, 2012.
- Annual General Meeting of ICAR Society held at NASC Complex, New Delhi on 6 March, 2012.

#### Dr. M. Thangam

- 30th AICRP on Vegetable crops held at GB Pant University of Agriculture and Technology, Pantnagar during 13-16, January, 2012
- Annual review meeting of Phytofura held at IIHR, Bangalore during 3-4, March, 2012
- National Seminar: Indian Agriculture: preparedness for climate change" at at New Delhi. during 24-25 March. 2012

#### Dr PK Naik

• 14th Biennial Conference of Animal Nutrition Society of India on 'Livestock Productivity Enhancement with Available Feed Resources' held at GBPUA&T, Pantnagar, Uttarakhand, India, during November 3-5, 2011.

## PERSONALIA

#### Award

Dr PK Naik, Senior Scientist awarded Dr. K. Pradhan Young Scientist Award in the field of Animal Nutrition and Feed Technology in the 14th Biennial Conference of the Animal Nutrition Society of India on 'Livestock Productivity Enhancement with Available Feed Resources' at GBPUAT, Pantnagar during November 3-5, 2011.

#### **Foreign Deputation**

Dr. R. Ramesh, Sr.Scientist (Plant Pathology) has been deputed to undergo training course (DBT-CREST AWARD 2010-11) on Molecular Plant Pathology at University of Geogria, Department of Plant Pathology, Athens, USA from 9-10-2011 to 8-10-2012.

#### **Appointment / Transfers**

Dr. R. Mauthadurai, joined as Scientist (Entomology) w.e.f 5-9-2011.

Smt. Shreya Barve was appointed as Stenographer Grade III (KVK) w.e.f 20-12-2011

Shri Tulshar Mangaraj was appointed as LDC w.e.f 23-3-2012

Shri Vyas Hiren Kumar was appointed as LDC w.ef. 23-3-2012

Shri Vikrant Gupta was appointed as LDC w.e.f 27-3-2012

Shri Upendra Kumar was appointed as T-1(JTA) w.e.f 27-03-2012

Shri Dilkush Ram Velip was appointed as Driver T-1 (KVK) w.e.f 26-3-2012

#### **Promotions**

Smt.Lizette Noronha was promoted from PA to P.S w.ef 2-4-2012 Smt. Tarika Maulingkar was promoted from Steno Grade III to P A w.e.f 14-3-2012 Shri Suresh M Gomes was promoted from T-2 to T-3 w.ef 24-1-2012

#### Retirement

Shri Mario Fernandes, PS was superannuated on 31-3-2012 Shri UB Porwar, T-5 was super annuated on 31-3-2012 Shri B Dharmapala, T-5 was superannuated on 31-3-2012